Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-5 (Canceled).

6. (Previously presented) A method of operating a plurality of virus checkers for on-demand anti-virus scanning concurrent with on-access anti-virus scanning, the method comprising:

combining on-demand anti-virus scan requests and on-access anti-virus scan requests in a virus scan request queue; and

distributing the on-demand anti-virus scan requests and the on-access anti-virus scan requests from the virus scan request queue to the virus checkers;

which includes grouping the on-demand anti-virus scan requests into chunks, each of the chunks including multiple ones of the on-demand anti-virus scan requests, and placing the chunks onto the virus scan request queue.

7. (Previously presented) The method as claimed in claim 6, which includes inhibiting the placement of at least one of the chunks onto the virus scan request queue until completion of anti-virus scanning for the anti-virus scan requests in a prior one of the chunks.

Claims 8-10 (Canceled).

11. (Previously presented) A method of operating a plurality of virus checkers, the method comprising:

distributing on-demand anti-virus scan requests and on-access anti-virus scan requests to the virus checkers so that the virus checkers perform on-demand anti-virus scanning concurrent with on-access anti-virus scanning;

which includes grouping the on-demand anti-virus scan requests into chunks, each of the chunks including multiple ones of the on-demand anti-virus scan requests, and for each chunk, distributing the multiple ones of the on-demand anti-virus scan requests over the virus checkers; and

which includes inhibiting the distribution of the multiple ones of the on-demand anti-virus scan requests from at least one of the chunks to the virus checkers until completion of anti-virus scanning for the anti-virus scan requests in a prior one of the chunks.

12. (Previously presented) A method of operating a plurality of virus checkers for on-demand anti-virus scanning concurrent with on-access anti-virus scanning, the method comprising:

combining on-demand anti-virus scan requests and on-access anti-virus scan requests in a virus scan request queue; and

a pool of threads distributing the on-demand anti-virus scan requests and the on-access anti-virus scan requests from the virus scan request queue to the virus checkers, each anti-virus scan request on the virus scan request queue being serviced by a respective one of the threads in the pool of threads,

which includes grouping the on-demand anti-virus scan requests into chunks, each of the chunks including multiple ones of the on-demand anti-virus scan requests, and for each chunk, checking whether the number of anti-virus scan requests on the virus checking queue is less than a threshold, and upon finding that the number of anti-virus scan requests on the virus checking queue is less than the threshold, placing said each chunk on the virus scan request queue.

13. (Original) The method as claimed in claim 12, wherein the on-access anti-virus scan requests are produced in response to user access to files.

14. (Original) The method as claimed in claim 12, wherein the on-demand anti-virus scan requests are produced in response to a system administrator requesting a scan of files within a specified file system.

15. (Original) The method as claimed in claim 12, which includes inhibiting the placement of at least one of the chunks onto the virus scan request queue until completion of anti-virus scanning for the anti-virus scan requests in a prior one of the chunks.

Claims 16-21 (Canceled).

22. (Previously presented) A virus checking system comprising:

a plurality of virus checkers for on-demand anti-virus scanning concurrent with on-access anti-virus scanning;

a virus scan request queue; and

at least one processor coupled to the virus checkers and the virus scan request queue for sending virus scan requests from the virus scan request queue to the virus checkers, said at least one processor being programmed for placing on-demand anti-virus scan requests and on-access anti-virus scan requests onto the virus scan request queue, and for distributing the on-demand anti-virus scan requests and the on-access virus scan requests from the virus scan request queue to the virus checkers;

wherein said at least one of the processors is programmed for grouping the on-demand anti-virus scan requests into chunks, each of the chunks including multiple ones of the on-demand anti-virus scan requests, and placing the chunks onto the virus scan request queue.

23. (Original) The virus checking system as claimed in claim 22, which includes inhibiting the placement of at least one of the chunks onto the virus scan request queue until completion of anti-virus scanning for the anti-virus scan requests in a prior one of the chunks.

24. (Previously presented) A virus checking system comprising:

a plurality of virus checkers for on-demand anti-virus scanning concurrent with on-access anti-virus scanning; and

a file server coupled to the virus checkers for sending virus scan requests to the virus checkers, the file server including a virus scan request queue, and the file server being programmed for placing on-demand anti-virus scan requests and on-access anti-virus scan requests onto the virus scan request queue; and for executing multiple threads for distributing the on-demand anti-virus scan requests and the on-access anti-virus scan requests from the virus scan request queue to the virus checkers, each anti-virus scan request on the virus scan request queue being serviced by a respective one of the threads in the pool of threads, the file server further being programmed for grouping the on-demand anti-virus scan requests into chunks, each of the chunks including multiple ones of the on-demand anti-virus scan requests, and for consecutively placing the chunks onto the virus scan request queue.

25. (Original) The virus checking system as claimed in claim 24, wherein the file server is programmed for producing the on-access anti-virus scan requests in response to user access to files.

26. (Original) The virus checking system as claimed in claim 24, wherein the file server is programmed to produce the on-demand anti-virus scan requests in response to a system administrator requesting a scan of files within a specified file system.

27. (Original) The virus checking system as claimed in claim 24, wherein the file server is programmed for checking for each chunk whether the number of anti-virus scan requests on the virus checking queue is less than a threshold, and upon finding that the number of anti-virus scan requests on the virus checking queue is less than the threshold, placing said each chunk on the virus scan request queue.

28. (Original) The virus checking system as claimed in claim 24, wherein the file server is programmed for inhibiting the placement of at least one of the chunks onto the virus scan request queue until completion of anti-virus scanning for the anti-virus scan requests in a prior one of the chunks.

29. (Currently amended) ~~The method as claimed in claim 12,~~ A method of operating a plurality of virus checkers for on-demand anti-virus scanning concurrent with on-access anti-virus scanning, the method comprising:

combining on-demand anti-virus scan requests and on-access anti-virus scan requests in a virus scan request queue; and

a pool of threads distributing the on-demand anti-virus scan requests and the on-access anti-virus scan requests from the virus scan request queue to the virus checkers, each anti-virus scan request on the virus scan request queue being serviced by a respective one of the threads in the pool of threads;

which includes grouping the on-demand anti-virus scan requests into chunks, each of the chunks including multiple ones of the on-demand anti-virus scan requests, and for each chunk,

checking whether the number of anti-virus scan requests on the virus checking queue is less than a threshold, and upon finding that the number of anti-virus scan requests on the virus checking queue is less than the threshold, placing said each chunk on the virus scan request queue;

wherein the chunks have a size equal to a certain number of on-demand anti-virus scan requests, and the certain number of on-demand anti-virus scan requests is ~~substantially~~ equal to the product of the number of virus checkers and the number of threads in the pool of threads.

30. (Currently amended) The method as claimed in claim 12, wherein the chunks have a size equal to a certain number of on-demand anti-virus scan requests, and the threshold is ~~about~~ one-half of the size.

31. (Currently amended) The method as claimed in claim [[12]] 29, wherein ~~the chunks have a size equal to a certain number of on-demand anti-virus scan requests, the certain number of on-demand anti-virus scan requests is substantially equal to the product of the number of virus checkers and the number of threads in the pool of threads, and~~ the threshold is ~~about~~ one-half of the size.

32. (Currently amended) ~~The virus checking system as claimed in claim 24,~~

A virus checking system comprising:

a plurality of virus checkers for on-demand anti-virus scanning concurrent with on-access anti-virus scanning; and

a file server coupled to the virus checkers for sending virus scan requests to the virus checkers, the file server including a virus scan request queue, and the file server being programmed for placing on-demand anti-virus scan requests and on-access anti-virus scan requests onto the virus scan request queue; and for executing multiple threads for distributing the on-demand anti-virus scan requests and the on-access anti-virus scan requests from the virus scan request queue to the virus checkers, each anti-virus scan request on the virus scan request queue being serviced by a respective one of the threads in the pool of threads, the file server further being programmed for grouping the on-demand anti-virus scan requests into chunks, each of the chunks including multiple ones of the on-demand anti-virus scan requests, and for consecutively placing the chunks onto the virus scan request queue;

wherein the chunks have a size equal to a certain number of on-demand anti-virus scan requests, and the certain number of on-demand anti-virus scan requests is ~~substantially~~ equal to the product of the number of virus checkers and the number of threads in the pool of threads.

33. (Currently amended) The virus checking system as claimed in claim 27, wherein the chunks have a size equal to a certain number of on-demand anti-virus scan requests, and the threshold is ~~about~~ one-half of the size.

34. (Currently amended) The virus checking system as claimed in claim [[27]] 32, wherein ~~the chunks have a size equal to a certain number of on-demand anti-virus scan requests, the certain number of on-demand anti-virus scan requests is equal to the product of the number of virus checkers and the number of threads in the pool of threads, and~~ the file server is

programmed for checking for each chunk whether the number of anti-virus scan requests on the virus checking queue is less than a threshold, and upon finding that the number of anti-virus scan requests on the virus checking queue is less than the threshold, placing said each chunk on the virus scan request queue, and

wherein the threshold is ~~about~~ one-half of the size.